Please type a plus sign (+) inside this box → [+]

HDP/SB/21 based on PTO/SB/21 (08-00)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	**10/619,046**
Filing Date	July 14, 2003
Inventor(s)	Seung-Jae HAN et al.
Group Art Unit	2617
Examiner Name	Khai Minh Nguyen
Attorney Docket Number	129250-002171/US

ENCLOSURES *(check all that apply)*

☒ Fee Transmittal Form

   ☒ Fee Attached

☐ Amendment

   ☐ After Final

   ☐ Affidavits/declaration(s)

☐ Extension of Time Request

☐ Express Abandonment Request

☐ Information Disclosure Statement

☐ Certified Copy of Priority Document(s)

☐ Response to Missing Parts/ Incomplete Application

☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

☐ Assignment Papers *(for an Application)*

☐ Letter to the Official Draftsperson and _____ Sheets of Formal Drawing(s)

☐ Licensing-related Papers

☐ Petition

☐ Petition to Convert to a Provisional Application

☐ Power of Attorney, Revocation Change of Correspondence Address

☐ Terminal Disclaimer

☐ Request for Refund

☐ CD, Number of CD(s) _____

☐ After Allowance Communication to Group

☐ LETTER SUBMITTING APPEAL BRIEF AND APPEAL BRIEF (w/clean version of pending claims)

☒ Appeal Communication to Group *(Notice of Appeal, **Brief**, Reply Brief)*

☐ Proprietary Information

☐ Status Letter

☒ Other Enclosure(s) *(please identify below)*: **Check# 1269 for $500**

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC	Attorney Name John E. Curtin	Reg. No. 37,602
Signature			
Date	March 5, 2007		

PTO/SB/17 (12-04)
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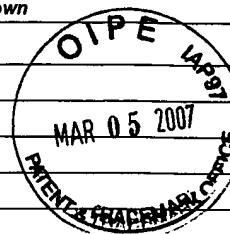
FEE TRANSMITTAL
for FY 2007

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($)	500.00

Complete if Known

Application Number	10/619,046
Filing Date	July 14, 2003
First Named Inventor	S.J. Han
Examiner Name	K. M. Nguyen
Art Unit	2617
Attorney Docket No.	129250-002171/US

MAR 05 2007

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number	50-3777
Deposit Account Name	CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC

The Director is authorized to: *(check all that apply)*
☐ Charge fee(s) indicated below ☒ Credit any overpayments
☒ Charge any additional fee(s) during the pendency of this application
☐ Charge fee(s) indicated below, **except for the filing fee**
to the above-identified deposit account.

FEE CALCULATION

1.   BASIC FILING FEE

Large Entity		Small Entity			
Fee Code	Fee ($)	Fee Code	Fee ($)	Fee Description	Fee Paid
1011	300	2011	150	Utility filing fee	
1012	200	2012	100	Design filing fee	
1013	200	2013	100	Plant filing fee	
1014	300	2014	150	Reissue filing fee	
1005	200	2005	100	Provisional filling fee	

SUBTOTAL (1) ($) 0

2.   EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims	Fee from below	Fee Paid
Total Claims		-20 ** =	9 prev. paid for X	= 0
Independent Claims		-3 ** =	4 prev. paid for X	= 0
Multiple Dependent				= 0

Large Entity		Small Entity			
Fee Code	Fee ($)	Fee Code	Fee ($)	Fee Description	
1202	50	2202	25	Claims in excess of 20	
1201	200	2201	100	Independent claims in excess of 3	
1203	360	2203	180	Multiple dependent claim, if not paid	
1204	200	2204	100	** Reissue independent claims over original patent	
1205	50	2205	25	** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) ($) 0

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity			
Fee Code	Fee ($)	Fee Code	Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	120	2251	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	500
1403	1000	2403	500	Request for oral hearing	
1452	500	2452	250	Petition to revive – unavoidable	
1453	1500	2453	750	Petition to revive – unintentional	
1501	1400	2501	700	Utility issue fee (or reissue)	
1502	800	2502	400	Design issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	790	2809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid   SUBTOTAL (3) ($)500

4. SEARCH/EXAMINATION FEES

Large		Small			
1111	500	2111	250	Utility Search Fee	
1112	100	2112	50	Design Search Fee	
1113	300	2113	150	Plant Search Fee	
1114	500	2114	250	Reissue Search Fee	
1311	200	2311	100	Utility Examination Fee	
1312	130	2312	65	Design Examination Fee	
1313	160	2313	80	Plant Examination Fee	
1314	600	2314	300	Reissue Examination Fee	

SUBTOTAL (4) ($)0

SUBMITTED BY					Complete (if applicable)	
Name (Print/Type)	John E. Curtin		Registration No. (Attorney/Agent)	37,602	Telephone	(703) 266-3330
Signature					Date	March 5, 2007

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IN THE U.S. PATENT AND TRADEMARK OFFICE

Appellants:	Seung-Jae Han et al.
Application No.:	10/619,046
Art Unit:	2617
Filed:	July 14, 2003
Examiner:	Khai Minh Nguyen
For:	METHODS AND APPARATUSES FOR ADAPTIVE AND ONLINE ASSIGNMENT IN HIERARCHICAL OVERLAY NETWORKS
Attorney Docket No.:	129250-002171/US

APPELLANTS' BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

March 5, 2007

APPELLANTS' BRIEF ON APPEAL
U.S. Application No.: 10/619,046
Atty. Docket: 129250-002171/US

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APPELLANTS' BRIEF ON APPEAL

I.   REAL PARTY IN INTEREST:

The real party in interest in this appeal is Lucent Technologies Inc. Assignment of the application was submitted to the U.S. Patent and Trademark Office and recorded at Reel 014299, Frame 0536.

II.   RELATED APPEALS AND INTERFERENCES:

There are no known appeals or interferences that will affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.

III.   STATUS OF CLAIMS:

Claims 1-36 are pending in the application, with claims 1, 12, and 23 written in independent form.

Claims 1-3, 5, 7, 8, 11-14, 16, 18, 19, 22-27, 29, 31, 35 and 36 remain finally rejected under 35 U.S.C. §103(a) while the other remaining claims have been objected to by the Examiner. Claims 1-36 are being appealed.

IV.   STATUS OF AMENDMENTS:

A Request for Reconsideration ("Request") was filed on December 1, 2006. In an Advisory Action dated January 4, 2007 ("Advisory Action"), the Examiner stated that the Request was considered but did not place the application in condition for allowance.

V. SUMMARY OF CLAIMED SUBJECT MATTER:

(i). Overview of the Subject Matter of the Independent Claims

The present invention is directed at the assignment of mobile devices to micro- and macro-cells based on an adjustable threshold that is in turn based on performance characteristics of the two cell types. More specifically, independent claim 1 reads as follows (specification citations follow in parenthesis):

1. **A method for calculating a transmission characteristic threshold for use in assigning a user to one layer in a plurality of layers in a wireless communications network, said method comprising:**
calculating a first balancing metric based on an operating characteristic of said first layer;
calculating a second balancing metric based on an operating characteristic of said second layer; and
adjusting said transmission characteristic threshold in response to the value of said first balancing metric relative to said second balancing metric.

(see specification, page 5, line 25 to page 19, last line, for example)

Independent claim 12 reads as follows:

12. **Apparatus for calculating a transmission characteristic threshold for use in assigning a user to one layer in a plurality of layers in a wireless communications network, said apparatus comprising:**
means for calculating a first balancing metric based on an operating characteristic of said first layer;
means for calculating a second balancing metric based on an operating characteristic of said second layer; and
means for adjusting said transmission characteristic threshold in response to the value of said first balancing metric relative to said second balancing metric.

(see specification, page 5, line 25 to page 19, last line, for example)

Independent claim 23 reads as follows:

23. **An assignment manager for assigning a user to one layer in a plurality of layers in a wireless communications network, said assignment manager comprising:**

a first circuit for calculating a first balancing metric based on an operating characteristic of said first layer;

a second circuit for calculating a second balancing metric based on an operating characteristic of said second layer; and

a third circuit for adjusting a transmission characteristic threshold in response to the value of said first balancing metric relative to said second balancing metric.

(see specification, page 5, line 25 to page 19, last line, for example)

In order to make the overview set forth above concise the disclosure that has been included, or referred to, above only represents a portion of the total disclosure set forth in the Specification that supports the independent claims.

(ii). The Remainder of the Specification Also Supports the Claims

The Appellants note that there may be additional disclosure in the Specification that also supports the independent and dependent claims. Further, by referring to the disclosure above the Appellants do not represent that this is the only evidence that supports the independent claims nor do Appellants necessarily represent that this disclosure can be used to fully interpret the claims of the present invention. Instead, this disclosure is an overview of the claimed subject matter.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Appellants seek the Board's review and reversal of the rejection of claims 1-3, 5, 7, 8, 11-14, 16, 18, 19, 22-27, 29, 31, 35 and 36 (and the objected to claims as well) under 35 U.S.C. §103(a) based on U.S. Patent No. 4,670,899 to Brody et al ("Brody") in view of U.S. Patent No. 6,792,275 to Lo et al ("Lo").

VII. **ARGUMENTS:**

The §103 Rejections

Claims 1-3, 5, 7, 8, 11-14, 16, 18, 19, 22-27, 29, 31, 32, 35 and 36 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Brody and Lo. The Appellants respectfully disagree for at least the following reasons.

In the Final Office Action the Examiner takes the position that Brody discloses the claimed steps of: (a) calculating a first balancing metric based on an operating characteristic of said first layer, and (b) calculating a second balancing metric based on an operating characteristic of said second layer; but does not disclose the claimed step of (c) adjusting said transmission characteristic threshold in response to the value of said first balancing metric relative to said second balancing metric.

To make up for this deficiency in Brody the Examiner relies on Lo.

The Appellants respectfully disagree. Initially the Appellants note that, contrary to the Examiner's position, Brody does not disclose at least steps (b) *and* (c) while Lo does not disclose at least step (c).

In more detail it appears that the Examiner is interpreting each of Brody's cells as separate layers. In the Office Action the Examiner states that "each... cell site base station defines a geographical cell (layer)" (parenthesis in original; page 2 of Office Action). This is a position that the Examiner repeats in the Advisory Action as well (see continuation sheet; "...(a network can have more than one base stations [sic], and each or [sic] the cell site base stations defines a geographical cell (layer)))..."). Notable, however, is the fact that Brody does not describe its cells as layers; this is the Examiner's interpretation.

The Appellants respectfully submit that one of ordinary skill in the art, upon reading Brody's disclosure, would not interpret each of Brody's individual cells as a "layer" as the Examiner has done. To the contrary, one of ordinary skill would understand that the cells referred to in Brody (e.g., C8 and C9) are in the

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same layer. Thus, Brody does not disclose nor suggest step (b). Because of this, as the Examiner acknowledges, Brody cannot adjust a transmission characteristic threshold in response to the value of a first layer's balancing metric relative to a second layer's balancing metric (i.e., step (c)) because Brody's values/thresholds relate only to the same layer.

Turning now to Lo, contrary to the Examiner's statement in the Final Office Action (maintained in the Advisory Action) Lo does not disclose the adjustment of a transmission characteristic threshold "in response to the value of [a] first balancing metric relative to [a] second balancing metric". Instead, Lo adjusts its macro- and micro-cell performance thresholds based on a "Sugeno displacement gradient" (column 4, lines 25-35). As far as Appellants can determine a Sugano displacement gradient is specific to "fuzzy logic" approximation techniques that do not involve the adjustment of a threshold upon comparison of two different balancing metrics, i.e., step (c).

Appellants note that in the Advisory Action and Final Office Action the Examiner does not appear to have addressed the position set forth above with respect to Lo; a position that the Appellants presented in their previous responses.

Because the combination of Brody and Lo does not disclose or suggest steps (b) and (c) set forth above, the Appellants respectfully submit that the subject matter of claims 1-3, 5, 7, 8, 11-14, 16, 18, 19, 22-27, 29, 31, 32, 35 and 36 would not have been obvious to one of ordinary skill in the art at the time the present application was filed based on reading the disclosures of Brody and Lo.

Conclusion:

Appellants respectfully request that members of the Board reverse the decision of the Examiner and allow claims 1-36.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

Capitol Patent & Trademark Law Firm, PLLC

By: _____

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P.O. Box 1995
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VIII. CLAIMS APPENDIX

1.   (Original)   A method for calculating a transmission characteristic threshold for use in assigning a user to one layer in a plurality of layers in a wireless communications network, said method comprising:

calculating a first balancing metric based on an operating characteristic of said first layer;

calculating a second balancing metric based on an operating characteristic of said second layer; and

adjusting said transmission characteristic threshold in response to the value of said first balancing metric relative to said second balancing metric.

2.   (Original)   The method of claim 1 further comprising the step of assigning said user to a layer in response to the value of a first user transmission characteristic of a transmission from said user relative to said adjusted transmission characteristic threshold.

3.   (Original)   The method of claim 1, wherein said transmission characteristic threshold is a threshold corresponding to the size of the data to be transmitted to or from said user.

4.   (Original)   The method of claim 3 wherein said threshold is adjusted according to the equation:

$$D_0[k] = \min\left\{\max\left\{D_{\min}, D_0[k-1] - \frac{\beta_d}{k^{\gamma_d}}\Delta[k]\right\}, D_{\max}\right\}$$

where $D_0[k]$ is an optimal data size threshold at the k-th update interval of said threshold; β_d is an update magnitude parameter; γ_d is a time discounting factor; $D_0[k-1]$ is a data size threshold used at the k-1 update interval; $\Delta[k]$ is a weighted moving average of previous values of a difference in said balancing metric between

the macro-cell layer and the micro-cell layer; D_{min} is the minimum data amount to be transmitted by any user in the user population; and D_{max} is a maximum possible data size corresponding to said user.

5.   (Original)   The method of claim 1 wherein said transmission characteristic threshold is a threshold corresponding to the velocity of said user.

6.   (Original)   The method of claim 5 wherein said threshold is adjusted according to the equation:

$$V_0[k] = \min\left\{\max\left\{V_{min}, V_0[k-1] + \frac{\beta_v}{k^{\gamma_v}}\Delta[k]\right\}, V_{max}\right\}$$

where $V_o[k]$ is an optimal velocity threshold at the k-th update interval of said threshold; β_v is an update magnitude parameter; γ_v is a time discounting factor; $V_0[k-1]$ is a velocity threshold used at the k-1 update interval; $\Delta[k]$ is a weighted moving average of previous values of a difference in said balancing metric between the macro-cell layer and the micro-cell layer; V_{min} is the minimum velocity of any user in the user population; and V_{max} is the maximum velocity corresponding to said user.

7.   (Original)   The method of claim 1 wherein said first operating characteristic corresponds to an average number of users.

8.   (Original)   The method of claim 1 wherein said first operating characteristic corresponds to the expected system load as seen by said user.

9. (Original) The method of claim 7 wherein said first balancing metric is determined by the expression $X_m = \dfrac{C_m - \lambda_m \bar{D}_m}{\sqrt{C_m}}$ and said second balancing metric is determined by the expression $X_\mu = \dfrac{C_\mu - \lambda_\mu \bar{D}_\mu}{\sqrt{C_\mu}}$.

10. (Original) The method of claim 8 wherein said first balancing metric is determined by the expression $X_m = \dfrac{\lambda_m \bar{D}_m}{C_m - \lambda_m \bar{D}_m}$ and the second balancing metric is determined by the expression $X\mu = \dfrac{\lambda_\mu \bar{D}_\mu}{C_\mu - \lambda_\mu \bar{D}_\mu}$.

11. (Original) The method of claim 8 wherein said first balancing metric is determined by calculating the number of users in the first layer of said network and said second balancing metric is determined by calculating the number of users in said second layer of said network.

12. (Original) Apparatus for calculating a transmission characteristic threshold for use in assigning a user to one layer in a plurality of layers in a wireless communications network, said apparatus comprising:

means for calculating a first balancing metric based on an operating characteristic of said first layer;

means for calculating a second balancing metric based on an operating characteristic of said second layer; and

means for adjusting said transmission characteristic threshold in response to the value of said first balancing metric relative to said second balancing metric.

13. (Original)   The apparatus of claim 12 further comprising means for assigning said user to a layer in response to the value of a first user transmission characteristic of a transmission from said user relative to said adjusted transmission characteristic threshold.

14. (Original)   The apparatus of claim 12, wherein said transmission characteristic threshold is a threshold corresponding to the size of the data to be transmitted to or from said user.

15. (Original)   The apparatus of claim 14 wherein said threshold is adjusted according to the equation:

$$D_0[k] = \min\left\{\max\left\{D_{\min}, D_0[k-1] - \frac{\beta_d}{k^{\gamma_d}}\Delta[k]\right\}, D_{\max}\right\}$$

where $D_0[k]$ is an optimal data size threshold at the k-th update interval of said threshold; β_d is an update magnitude parameter; γ_d is a time discounting factor; $D_0[k-1]$ is a data size threshold used at the k-1 update interval; $\Delta[k]$ is a weighted moving average of previous values of a difference in said balancing metric between the macro-cell layer and the micro-cell layer; $D_{\min}$ is the minimum data amount to be transmitted by any user in the user population; and $D_{\max}$ is a maximum possible data size corresponding to said user.

16. (Original)   The apparatus of claim 12 wherein said transmission characteristic threshold is a threshold corresponding to the velocity of said user.

17.   (Original)   The apparatus of claim 16 wherein said threshold is adjusted according to the equation:

$$V_0[k] = \min\left\{\max\left\{V_{\min}, V_0[k-1] + \frac{\beta_v}{k^{\gamma_v}}\Delta[k]\right\}, V_{\max}\right\}$$

where $V_{o[k]}$ is an optimal velocity threshold at the k-th update interval of said threshold; β_v is an update magnitude parameter; γ_v is a time discounting factor; $V_0[k-1]$ is a velocity threshold used at the k-1 update interval; $\Delta[k]$ is a weighted moving average of previous values of a difference in said balancing metric between the macro-cell layer and the micro-cell layer; $V_{\min}$ is the minimum velocity of any user in the user population; and $V_{\max}$ is the maximum velocity corresponding to said user.

18.   (Original)   The apparatus of claim 12 wherein said first operating characteristic corresponds to an average number of users.

19.   (Original)   The apparatus of claim 12 wherein said first operating characteristic corresponds to the expected system load as seen by said user.

20.   (Original)   The apparatus of claim 18 wherein said first balancing metric is determined by the expression $X_m = \dfrac{C_m - \lambda_m \bar{D}_m}{\sqrt{C_m}}$ and said second balancing metric is determined by the expression $X_\mu = \dfrac{C_\mu - \lambda_\mu \bar{D}_\mu}{\sqrt{C_\mu}}$.

21.   (Original)   The apparatus of claim 18 wherein said first balancing metric is determined by the expression $X_m = \dfrac{\lambda_m \bar{D}_m}{C_m - \lambda_m \bar{D}_m}$ and the second balancing metric is determined by the expression $X\mu = \dfrac{\lambda_\mu \bar{D}_\mu}{C_\mu - \lambda_\mu \bar{D}_\mu}$.

22. (Original)   The apparatus of claim 18 wherein said first balancing metric is determined by calculating the number of users in the first layer of said network and said second balancing metric is determined by calculating the number of users in said second layer of said network.

23. (Original)   An assignment manager for assigning a user to one layer in a plurality of layers in a wireless communications network, said assignment manager comprising:

a first circuit for calculating a first balancing metric based on an operating characteristic of said first layer;

a second circuit for calculating a second balancing metric based on an operating characteristic of said second layer; and

a third circuit for adjusting a transmission characteristic threshold in response to the value of said first balancing metric relative to said second balancing metric.

24. (Original)   The assignment manager of claim 23 wherein said first circuit, said second circuit, said third circuit and said fourth circuit are the same circuit.

25. (Original)   The assignment manager of claim 23 further comprising a fourth circuit for assigning said user to a layer in response to the value of a first user transmission characteristic of a transmission from said user relative to said adjusted transmission characteristic threshold.

26. (Original)   The assignment manager of claim 23 wherein said first circuit, said second circuit, said third circuit and said fourth circuit are the same circuit.

27. (Original)   The method of claim 23, wherein said transmission characteristic threshold is a threshold corresponding to the size of the data to be transmitted to or from said user.

28. (Original)   The assignment manager of claim 27 wherein said threshold is adjusted according to the equation:

$$D_0[k] = \min\left\{\max\left\{D_{\min}, D_0[k-1] - \frac{\beta_d}{k^{\gamma_d}}\Delta[k]\right\}, D_{\max}\right\}$$

where $D_0[k]$ is an optimal data size threshold at the k-th update interval of said threshold; β_d is an update magnitude parameter; γ_d is a time discounting factor; $D_0[k-1]$ is a data size threshold used at the k-1 update interval; $\Delta[k]$ is a weighted moving average of previous values of a difference in said balancing metric between the macro-cell layer and the micro-cell layer; $D_{\min}$ is the minimum data amount to be transmitted by any user in the user population; and $D_{\max}$ is a maximum possible data size corresponding to said user.

29. (Original)   The assignment manager of claim 23 wherein said transmission characteristic threshold is a threshold corresponding to the velocity of said user.

30. (Original)   The assignment manager of claim 29 wherein said threshold is adjusted according to the equation:

$$V_0[k] = \min\left\{\max\left\{V_{\min}, V_0[k-1] + \frac{\beta_v}{k^{\gamma_v}}\Delta[k]\right\}, V_{\max}\right\}$$

where $V_{0[k]}$ is an optimal velocity threshold at the k-th update interval of said threshold; β_v is an update magnitude parameter; γ_v is a time discounting factor; $V_0[k-1]$ is a velocity threshold used at the k-1 update interval; $\Delta[k]$ is a weighted

moving average of previous values of a difference in said balancing metric between the macro-cell layer and the micro-cell layer; V_{min} is the minimum velocity of any user in the user population; and V_{max} is the maximum velocity corresponding to said user.

31. (Original) The assignment manager of claim 23 wherein said first operating characteristic corresponds to an average number of users.

32. (Original) The assignment manager of claim 23 wherein said first operating characteristic corresponds to the expected system load as seen by said user.

33. (Original) The assignment manager of claim 31 wherein said first balancing metric is determined by the expression $X_m = \dfrac{C_m - \lambda_m \overline{D}_m}{\sqrt{C_m}}$ and said second balancing metric is determined by the expression $X_\mu = \dfrac{C_\mu - \lambda_\mu \overline{D}_\mu}{\sqrt{C_\mu}}$.

34. (Original) The assignment manager of claim 32 wherein said first balancing metric is determined by the expression $X_m = \dfrac{\lambda_m \overline{D}_m}{C_m - \lambda_m \overline{D}_m}$ and the second balancing metric is determined by the expression $X\mu = \dfrac{\lambda_\mu \overline{D}_\mu}{C_\mu - \lambda_\mu \overline{D}_\mu}$.

35. (Original) The assignment manager of claim 32 wherein said first balancing metric is determined by calculating the number of users in the first layer of said network and said second balancing metric is determined by calculating the number of users in said second layer of said network.

36. (Original) The assignment manager of claim 23 wherein said first circuit, said second circuit, said third circuit and said fourth circuit are the same circuit.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.